



## Puromycin 2HCl

## Data Sheet

<b>Catalog Number:</b>	MC11045	<b>Product Type:</b>	Small Molecule
<b>Bio-Activity:</b>	Translation inhibitor	<b>CAS #:</b>	58-58-2
<b>Research Categories:</b>	Cell death, neuroscience, infectious disease	<b>Chemical Name:</b>	(S)-3'-[[2-amino-3-(4-methoxyphenyl)-1-oxopropyl]-amino]-3'-deoxy-N,N-dimethyl-adenosine dihydrochloride
<b>Solubility:</b>	Soluble in DMSO (up to 50 mg/ml), or in Water (up to 50 mg/ml).	<b>Molecular Formula:</b>	C22H29N7O5 · 2HCl
<b>Purity:</b>	> 98%	<b>Molecular Weight:</b>	544.43
<b>Format:</b>	Powder	<b>Ship Temp:</b>	Ambient
<b>Storage:</b>	-20°C		

### Application Notes

#### Description/Data:

Puromycin is an aminonucleoside antibiotic derived from *Streptomyces alboniger*. It is a protein synthesis inhibitor that disrupts peptide transfer on ribosomes causing premature chain termination [1]. It is an inhibitor of dipeptidyl-peptidase II and cytosolic alanyl aminopeptidase [2]. Puromycin also inhibits protein transport in mitochondria [3].

#### References:

- 1) Azzam and Algranati; (1973) Mechanism of puromycin action: fate of ribosomes after release of nascent polypeptide chains from polysomes Proc.Nat.Acad.Sci.USA 70 3866
- 2) Bhutani et al. (2007) Puromycin-sensitive aminopeptidase is the major peptidase responsible for digesting polyglutamine sequences by proteasomes during protein degradation EMBO J. 26 1385
- 3) Price and Verner (1993) Puromycin inhibits protein import into mitochondria by interfering with an intramitochondrial ATP-dependent reaction Biochim.Biophys.Acta 1150 89

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